

FIG. 1A

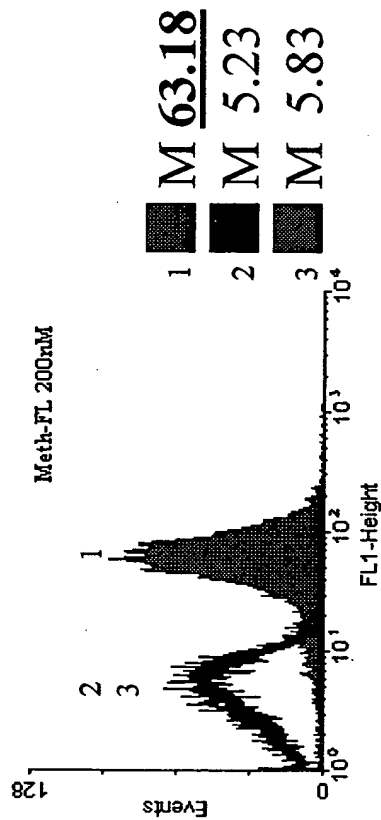


FIG. 1B

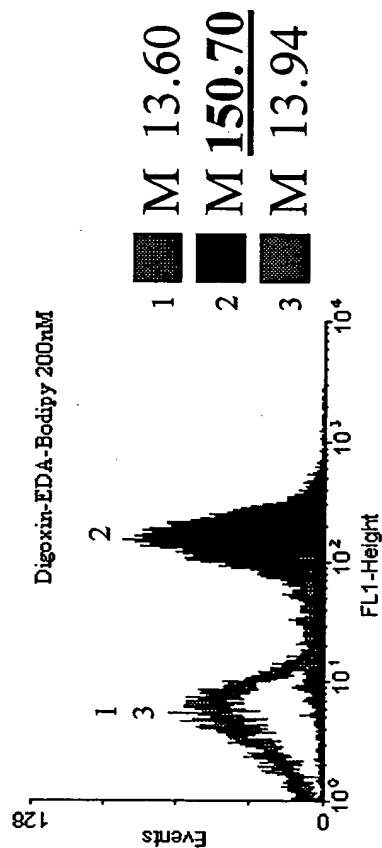
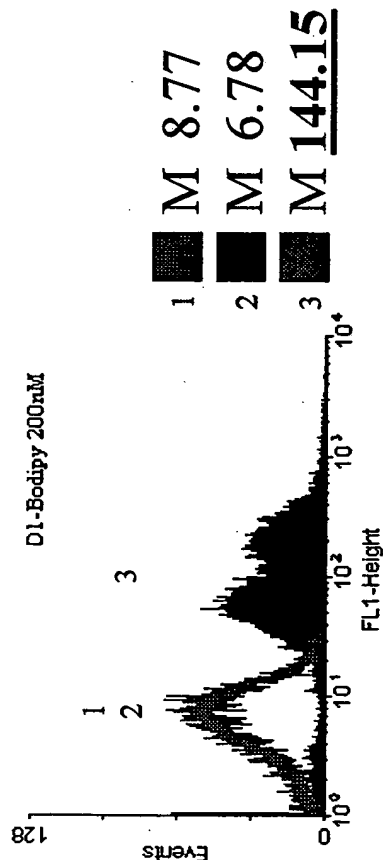


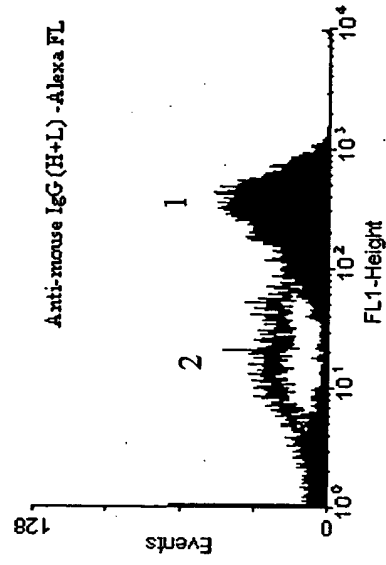
FIG. 1C



APEX expressed scFvs in *E. coli* represented by the following colors

- 1 Anti-MethAmp scFv
- 2 Anti-Digoxigenin scFv
- 3 Anti-peptide scFv

FIG. 2A



1 Mouse derived scFv

2 Human derived scFv

FIG. 2B

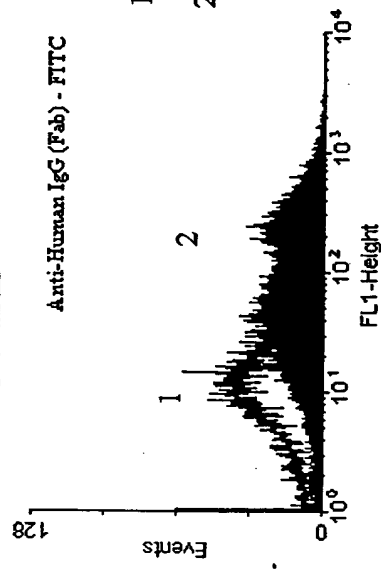
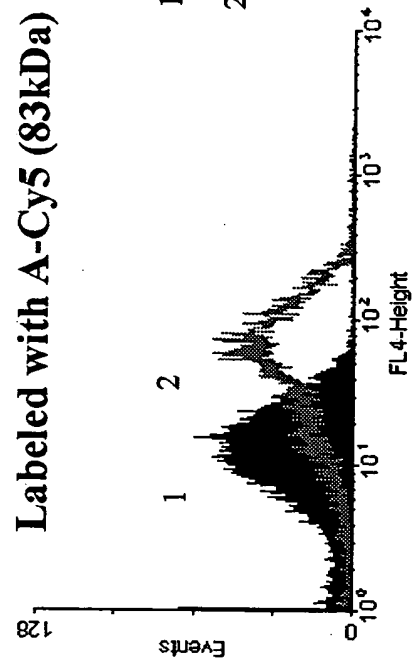


FIG. 3A



1 Anit-digoxigenin scFv

2 Anti-PA scFv

3 Anti-peptide scFv

FIG. 3B

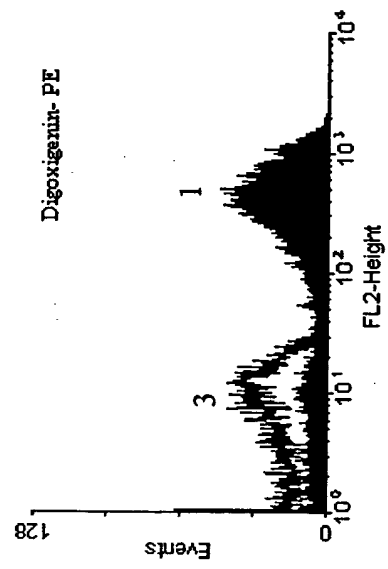


FIG. 4

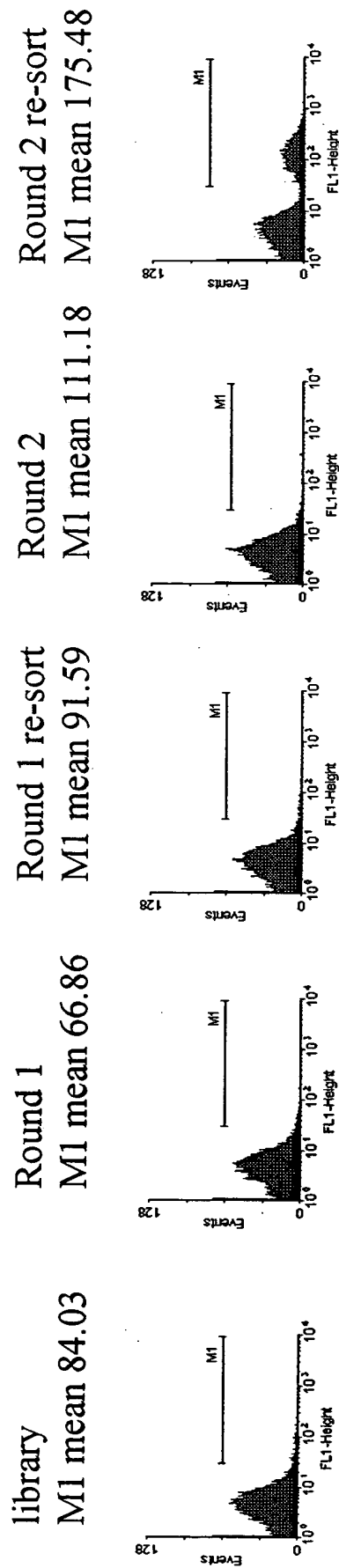
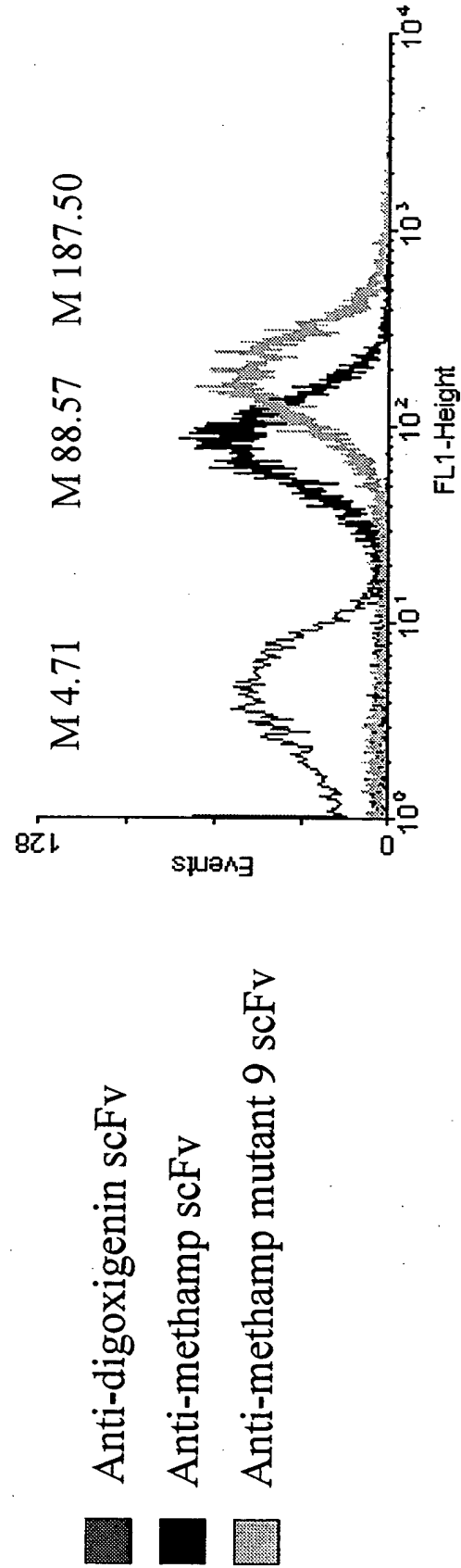
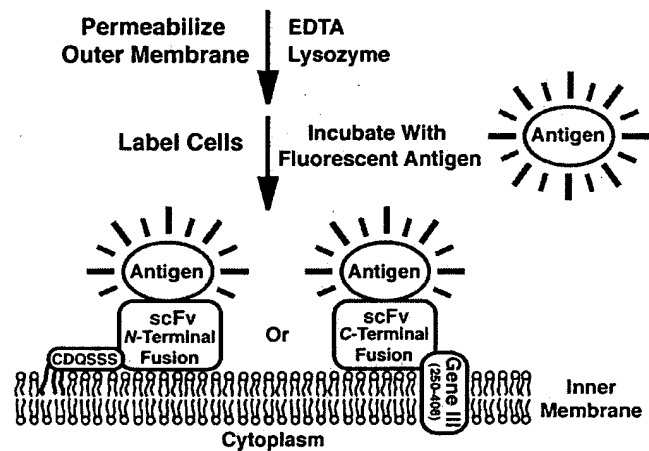
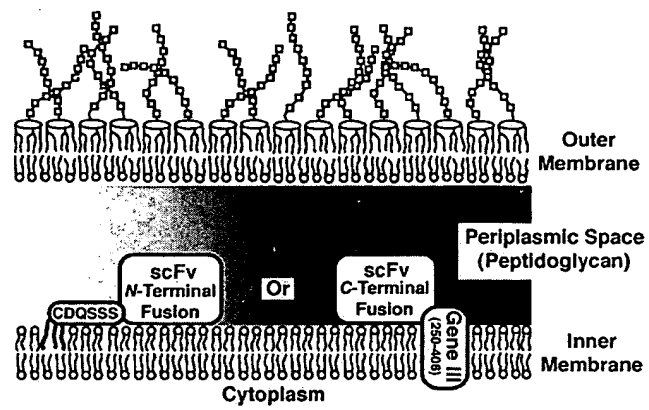


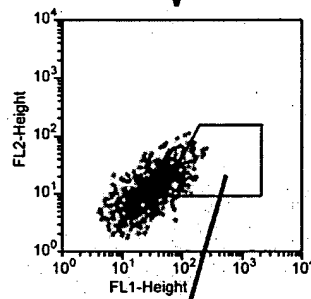
FIG. 5 Methamphetamine -FL 200nM label





Isolate Affinity Enhanced scFvs

Flow Cytometry



Recover scFv Genes

PCR

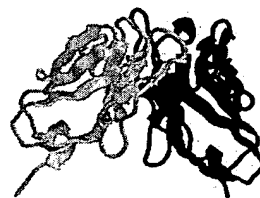


FIG. 6

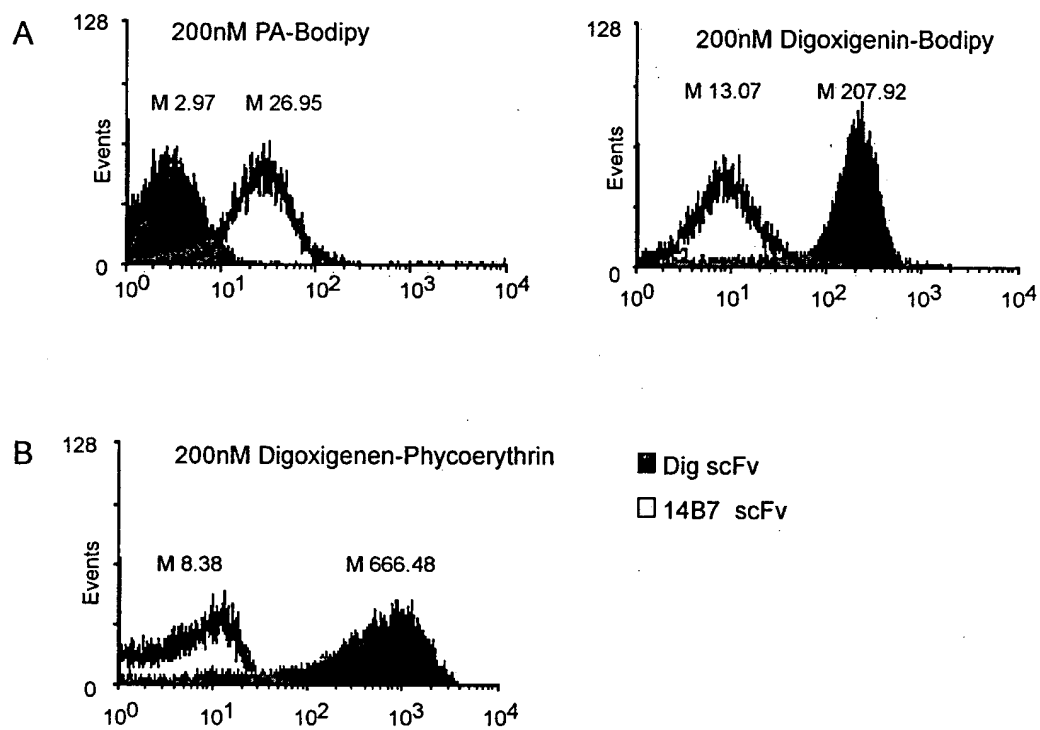


FIG. 7A, B

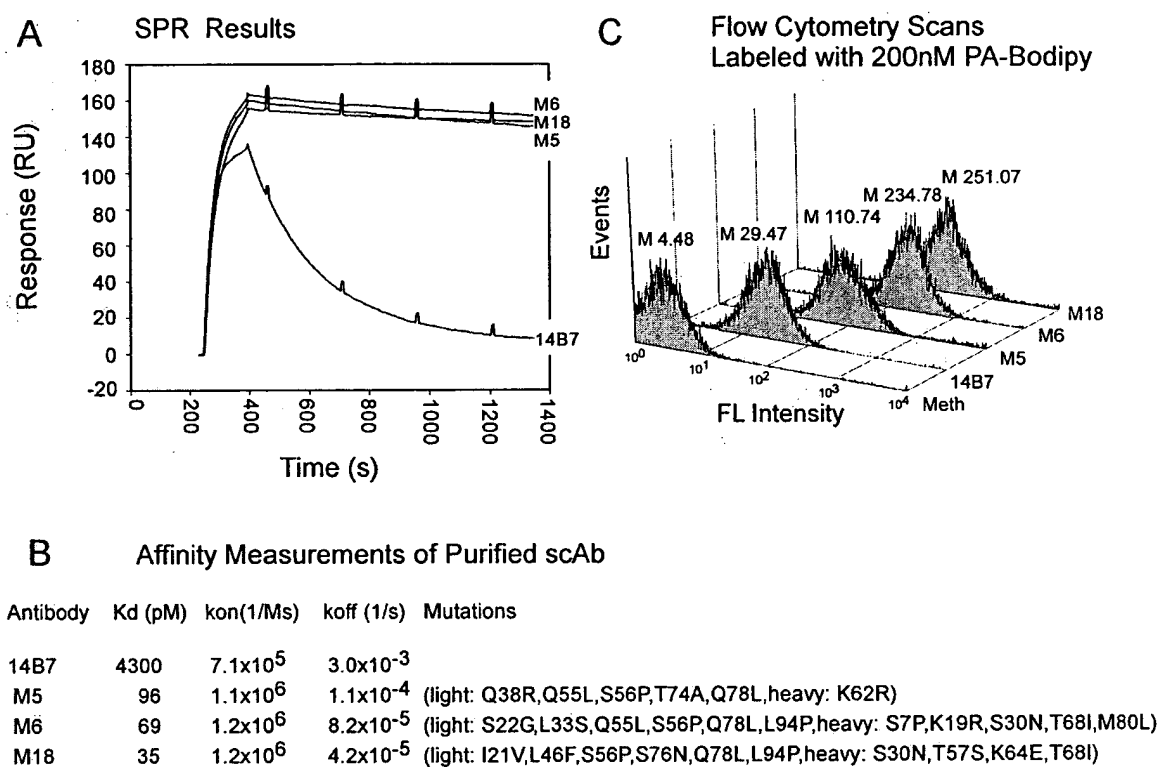


FIG. 8A-C

A 3D histogram showing the distribution of FL intensity (x-axis, logarithmic scale from 10⁰ to 10⁴) versus Methylation level (y-axis, categories: Dig, Meth) for M18. The z-axis represents Events (0 to 128). The histogram shows several peaks labeled with their mass values (M): M 4.48, M 5.23, M 13.60, M 63.18, M 150.70, M 251.07, and M18. The peaks are distributed across the Dig and Meth categories, with M18 being the most prominent peak in the Meth category.

A 3D mass spectrometry plot showing the distribution of labeled and unlabeled peaks. The vertical axis represents 'Events' from 0 to 128. The horizontal axis represents 'FL Intensity' on a logarithmic scale from 10^0 to 10^4 . The depth axis represents 'Meth' (Methylation) with labels 'Dig' and 'Meth'. A legend indicates that solid black bars represent 'Labeled' peaks and open bars represent 'Unlabeled' peaks. Several peaks are labeled with their mass-to-charge ratio (M): M 9.37, M 3.85, M 7.25, M 37.47, M 46.14, M 162.38, and M 18.

FIG. 9A, B

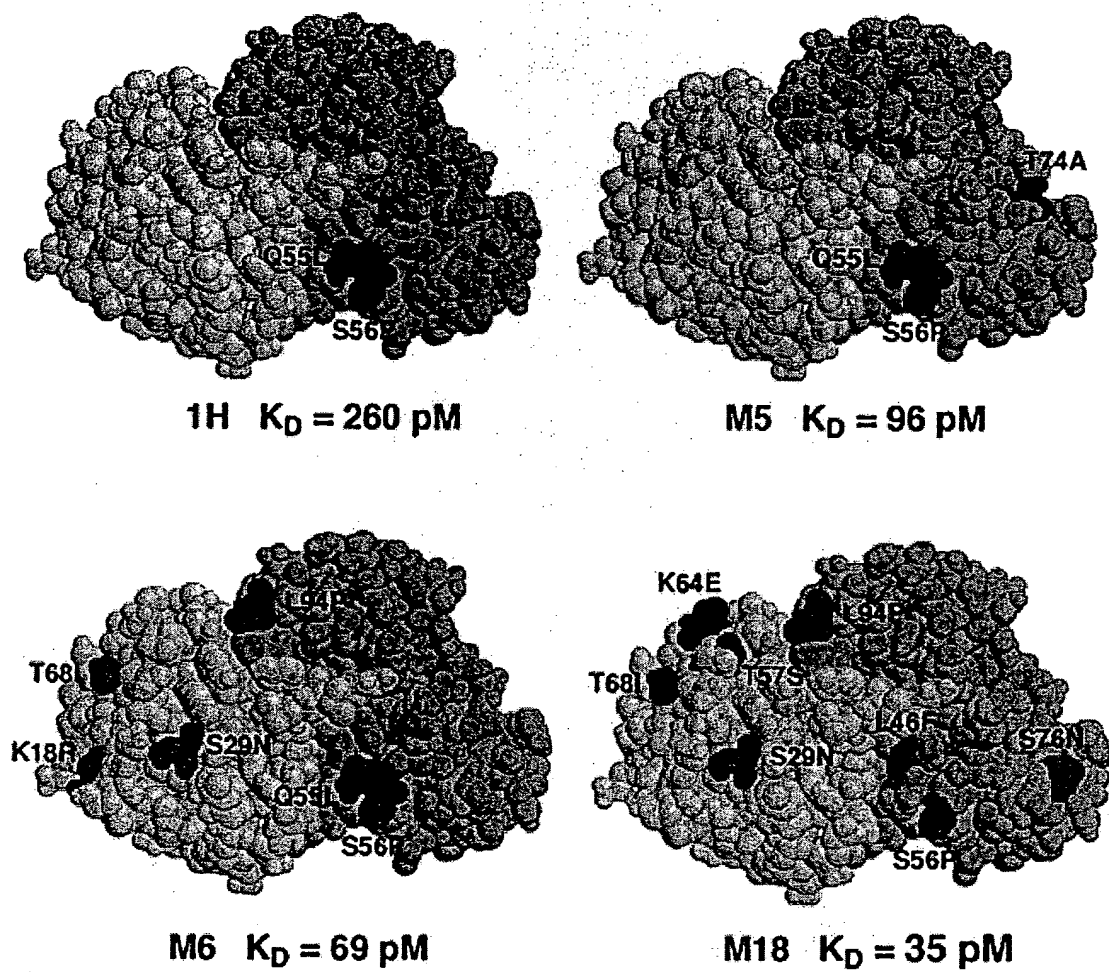


FIG. 10

	Variable Light
14B7scFv	DIQMTQTSSLSASLGDRVTISCRASQDIRNYLNWYQQKPDGTVKLLIYYTSTRLQSGVPSRFSGSGSDYSLTISNQEEDIGTYFCQQGNTLPWTFGGGKLEIKR
M18scFv	DIQMTQTSSLSASLGDRVTISCRASQDIRNYLNWYQQKPDGTVKFLIYYTSTRLQPGVPSRFSGSGSDYSLTINNLEQEDIGTYFCQQGNTPPWTFGGGKLEIKR
	Linker
14B7scFv	GGGGSGGGSGGGSGGGGS
M18scFv	GGGSDGGSGGGSGGGGS
	Variable Heavy
14B7scFv	EVQLQQSGPELVKPGASVKISCKDSGYAFSSSWMNWVKQRPQGQGLEWIGRIYPGDGDTNNGKFKGKATLTADKSSSTAYMQLSSLTSDSAVYFCARSGLLRYAMDYWGQGTSTVTVSS
M18scFv	EVQLQQSGPELVKPGASVKISCKDGYAFNSSWMNWKQRPQGQGLEWIGRIYPGDGDSNNGKFEKGKALTADKSSSTAYMQLSSLTSDSAVYFCARSGLLRYAMDYWGQGTSTVTVSS

FIG. 11